

## ABSTRACT OF THE DISCLOSURE

An apparatus and process is disclosed for the separation of solids from gases in a mixture which is most particularly applicable to an FCC apparatus. The mixture of solids and gases are passed through a conduit and exit through a swirl arm that imparts a swirl motion having a first annular direction to centripetally separate the heavier solids from the lighter gases. The mixture then enters a cyclone which has a curved outer wall and imparts a second swirling angular direction to the mixture. The second angular direction is counter to the first angular direction. The apparatus and method assures that a greater proportion of the mixture entering the cyclone is incorporated into the vortex to further enhance separation between the solids and gases.